

App. Serial No. 10/530,449  
Docket No.: NL020983US

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### Remarks

Claims 1-12 are currently pending in the patent application. For the reasons and arguments set forth below, Applicant respectfully submits that the rejections should be withdrawn because the cited references clearly teach away from the claimed invention.

The Office Action dated February 2, 2007 indicated the following: claims 1-4 and 8-11 stand rejected under 35 U.S.C. § 103(a) over Chiang (U.S. 6,339,544) and Yan (U.S. 2002/0134995); claims 5-7 stand rejected under 35 U.S.C. § 103(a) over Chiang and Yan, and further in view of Hawker (U.S. 6,670,285); and claim 12 stands rejected under 35 U.S.C. § 103(a) over Chiang and Yan, and further in view of Ovshinsky (U.S. 6,141,241).

Applicant respectfully traverses the Section 103(a) rejections of claims 1-12 (all of which are based upon Chiang in view of Yan) because there is no motivation to modify the Chiang reference with the cited teachings of the Yan reference. The Examiner acknowledges that the Chiang reference does not teach that dielectric material 210 is a porous material with pores having a size between 0.5 and 50 nm. In an attempt to overcome this deficiency the Examiner cites to portions of the Yan reference that teach a dielectric material (which has pores preferably less than 5 nm in size) that can be applied as a thin film. *See, e.g.*, Paragraph 0007. However, there is no motivation to replace Chiang's dielectric material 210 with the dielectric material taught by Yan because the cited portions of the Chiang reference teach away from using a dielectric material of the type taught by the Yan reference.

The Chiang reference teaches that "suitable materials for dielectric material 210 include those materials that have  $\kappa$  values less than 1.0." *See, e.g.*, Col. 5:31-33. Applicant has reviewed the Yan reference and failed to identify any teachings which specify that Yan's dielectric material has a  $\kappa$ -value of less than 1.0. *See, e.g.*, Paragraph 0040 ( $\kappa$ -value of 3.3 to 2.7), Paragraph 0048 ( $\kappa$ -value of 3.2-2.1), and Paragraph 0065 ( $\kappa$ -value of 2.1-1.8). The Chiang reference teaches that suitable  $\kappa$ -values for dielectric material 210 are less than 1.0, whereas the Yan reference teaches a dielectric material which has a  $\kappa$ -value that is substantially larger than 1.0. Thus, the Chiang reference teaches away from using the dielectric material taught by Yan. As such, there is no motivation to modify the Chiang reference with the cited teachings of Yan as suggested by the Examiner. Accordingly, the

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Section 103(a) rejections of claims 1-12 are improper and Applicant requests that they be withdrawn.

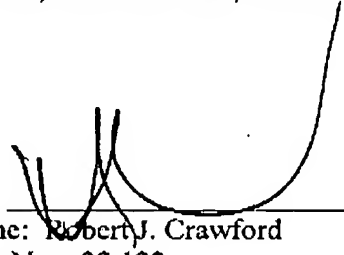
Applicant further traverses the Section 103(a) rejections of claims 1-12 because the Examiner fails to provide any motivation to modify Chiang with the cited teachings of the Yan reference. The Examiner merely cites to properties of Yan's dielectric material without providing motivation for combining the material with the Chiang reference. For example, the Examiner states that it "would have been obvious to use the material taught by Yan on the device of Chiang, since the material has small pores, uniform pore distribution, and the mechanical strength to be treated with CMP." *See, e.g.*, the instant Office Action, page 3:18-22. However, the Chiang reference teaches that the device depicted by Figure 10 (which includes dielectric material 210) is subjected to planarization, including chemical-mechanical polish (CMP). *See, e.g.*, Col. 18-23. Thus, Chiang's dielectric material 210 apparently has the mechanical strength to be treated with CMP and would not benefit from the teachings of Yan. Moreover, the Examiner does not provide any motivation regarding why one of skill in the art would be motivated to combine a dielectric material having small pores and uniform pore distribution with the Chiang reference. Therefore, the Section 103(a) rejections of claims 1-12 are improper and Applicant requests that they be withdrawn.

In view of the remarks above, Applicant believes that each of the rejections has been overcome and the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the agent overseeing the application file, Peter Zawilski, of NXP Corporation at (408) 474-9063.

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